

REMARKS

Applicant requests entry of the above-identified amendment. Prosecution on the merits is respectfully requested.

In addition, Applicant also submits these additional remarks. Claims 19 and 21-25 include the following limitation: “a thickness of said first electrode is less than 1/2 a thickness of said emissive element layer, said thickness of said emissive element layer is approximately 200 nm.” Claim 20 includes the following limitation: “a thickness of said first electrode is less than 1/3 a thickness of said emissive element layer, said thickness of said emissive element layer is approximately 200 nm.” None of the references teach or suggest that limitation.

Arai (U.S. 5,691,738, submitted by Applicant) discloses that the thickness of each layer constituting the inorganic EL element is as follows: first electrode = 200 nm, first dielectric layer = 300 nm or 400 nm (col. 7, lines 23-24, 31-33), luminescent layer = 600/700 nm (col. 7, lines 34-36, 45-46), second dielectric layer = 400nm (col. 7, lines 55-56, 59-60). In the Arai structure, the “emissive element layer” corresponds to a combination of the first and second dielectric layers and the luminescent layer, which have a total thickness of 1300 or 1400 to 1500 nm, which is approximately 7 times the thickness claimed in claims 12 and 13. Thus, Arai does not teach or suggest the claimed limitation. In addition, when the emissive element layer has such a large thickness, like that described in Arai, the problem of step coverage tends not to occur, and there is no need for providing the first electrode with an inclined surface.

Kawashima (U.S. 5,721,562, submitted by Applicant) discloses a thickness of the layer corresponding to the emissive element layer as being 18000 Å or 1800 nm, which is approximately 9 times the thickness of the claimed limitations in claims 12 and 13. Thus, Kawashima does not teach or suggest the claimed limitation. In addition, as described above with regard to Arai, the problem of step coverage tends not to occur with such a thick emissive element layer and thus, there is no need to provide an inclined surface on the first electrode. Accordingly, claims 12 and 13 are patentable over the prior art.

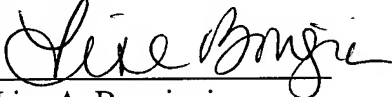
Claims 26-27 include the following limitation: “the emissive element layer comprises an organic layer that includes at least organic emissive molecules.” None of the references teach or suggest this limitation.

Both Arai and Kawahima are inorganic EL elements. In an inorganic EL element, in addition to an emissive layer provided between a first electrode and a second electrode, an insulating layer is provided between the emissive layer and the first electrode and between the emissive layer and the second electrode. To the contrary, an organic EL element is current driven and comprises only organic layers between the first and second electrode such as a charge transporting layer and an emissive layer, and there is no layer for insulation between the electrodes. The possibility of shorting between the first and second electrodes in an inorganic EL element is very small compared to that in an organic EL element, and thus, there is no need to actively prevent shorting in an inorganic EL element. Thus, it would not have been obvious for a person with ordinary skill in the art to set the thickness of the first electrode in an organic EL element to $\frac{1}{2}$ or less of the thickness of the emissive element layer based on the cited references.

If there are any charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicant's attorneys.

Respectfully submitted,

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